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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/677,708

10/02/2003

Jerry H. Stoller

SLRE.103540

9195

7590

07/12/2006

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EXAMINER

CLARDY, S

ART UNIT

PAPER NUMBER

1617

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/677,708	Applicant(s) STOLLER, JERRY H.	
	Examiner S. Mark Clardy	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-70 are pending in this application.

Applicant's claims are drawn to:

1 a method of inhibiting disease on and in plant tissues by applying in concentrations below the amount effective for affecting plant growth:

- a a plant growth hormone¹, precursor, or conjugate (claims 25-27),
- b an auxin² (claims 1-24),
- c an auxin for control of *Fusarium* and *Rhizoctonia* (claims 28-32);

2 a method of inhibiting insect infestation on plants by applying in concentrations below the amount effective for affecting plant growth:

- a a plant growth hormone, precursor, or conjugate (claims 51-53),
- b an auxin (claims 33-50),
- c an auxin for control of thrips on onions (claims 54-59);

3 a seed or seed piece treated with an amount of a plant growth hormone, precursor, or conjugate (claims 68-70), or auxin (claims 60-67), wherein the amount is less than that required to affect plant growth.

Dependent claims further specify application with metals (claims 15-17, 46-47, 58), encapsulation with a biologically compatible carrier for slow release (23-24), and application rates (8-13, 30, 40-42, 56, 63-65).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

¹ Claim 25: auxins, ethylene, cytokinin, gibberellins, abscisic acid, brassinosteroids, jasmonates, salicylic acids

² Claim 4, 6 (auxins): IAA; IPA, IBA, phenylacetic acid, NAA, 2,4-D, 4-chloroindole-3-acetic acid, 2,4,5-T, 2-methyl-4-chlorophenoxyacetic acid, 2,3,6-TBA, 2,4,6-TBA, 4-amino-3,4,5-trichloropicolinic acid

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wei (translation of CN 1262037A; the abstract was previously cited). Fredrick (US 4,675,327) is withdrawn as a reference.

Wei teaches that plant auxin was a known plant hormone, and discloses that at low concentrations, it is also effective as an antibacterial, antiviral, and antifungal agent. In the final three paragraphs of the translation, auxin is described as having an antibiotic effect from 0.0001 ppm to about 60 ppm, against specifically disclosed bacterial, viral, and fungal species.

Thus it would have been *prima facie* obvious to the ordinary artisan at the time the invention was made to have used plant hormones such as auxins as antimicrobial agents because the prior art teaches that such activity was known for this class of agents. Since application for antimicrobial purposes was known, at concentrations below the plant hormone activity threshold, it would be apparent that other effects of such applications, including inhibition of insect infestation, would necessarily follow from such applications.

Co-application with fertilizer components such as alkaline earth metals and transition metals (Ca, Zn, Cu, Mn) would have been *prima facie* obvious to the ordinary artisan because these components are art recognized secondary nutrients (Ca) and micronutrients (transition metals), and are conventionally applied with seed dressings. Thus, absent a showing of criticality, it would be obvious to apply the compositions to any plant or plant part, including seed. Formulation in any conventional composition, including slow release formulations is

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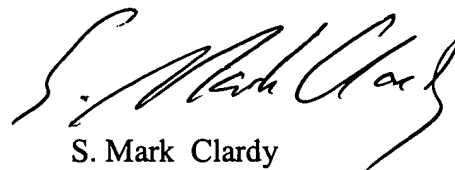
within the skill level of the ordinary artisan. Finally, determination of appropriate concentrations and application rates is also within the skill level of the ordinary artisan.

No unobvious or unexpected results are noted; no claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 571-272-0611. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'S. Mark Clardy', with a stylized flourish at the end.

S. Mark Clardy
Primary Examiner
Art Unit 1617

July 6, 2006